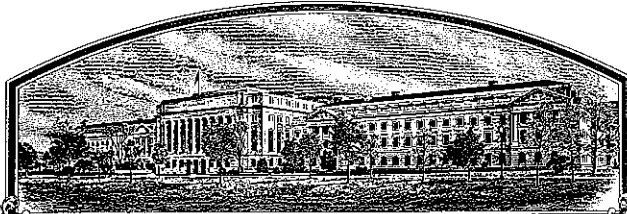


No.

9900231



THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Western Plant Breeders

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED DISTINCT VARIETY OF SEXUALLY REPRODUCED, OR TUBER PROPAGATED, PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF TWENTY YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE ABOVE PURPOSE, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

WHEAT, COMMON

'Zeke'

In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington, D.C. this thirty-first day of March, in the year of our Lord two thousand.

Attest:

Ann Marie Linn

Commissioner
Plant Variety Protection Office
Agricultural Marketing Service

Samuel H. Linn
Secretary of Agriculture

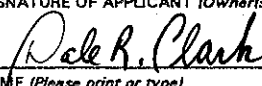
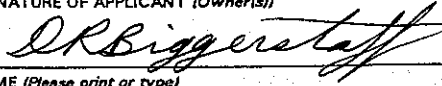
U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE AND TECHNOLOGY DIVISION - PLANT VARIETY PROTECTION OFFICE

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

(Instructions and information collection burden statement on reverse)

The following statements are made in accordance with the Privacy Act of 1974 (5 U.S.C. 552a) and the Paperwork Reduction Act (PRA) of 1995.

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

1. NAME OF APPLICANT(S) (as it is to appear on the Certificate)		2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER	3. VARIETY NAME
Western Plant Breeders, Inc.		BZ 987-331	Zeke
4. ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP Code, and Country)		5. TELEPHONE (include area code)	FOR OFFICIAL USE ONLY PVPO NUMBER 9900231
8111 Timberline Drive Bozeman, MT 59718-8184		(406) 587-1218	
7. GENUS AND SPECIES NAME		6. FAX (include area code)	F I L I N G
Triticum aestivum		(406) 586-8247	DATE March 25, 1999
8. FAMILY NAME (Botanical)		FILING AND EXAMINATION FEE:	
Poaceae		FEE \$ 2450.00	
9. CROP KIND NAME (Common name)		DATE 3-25-99	
Common wheat		CERTIFICATION FEE:	
10. IF THE APPLICANT NAMED IS NOT A "PERSON", GIVE FORM OF ORGANIZATION (corporation, partnership, association, etc.) (Common name)		FEE \$	
AriCorporation		DATE	
11. IF INCORPORATED, GIVE STATE OF INCORPORATION		12. DATE OF INCORPORATION	
Arizona		Aug. 24, 1990	
13. NAME AND ADDRESS OF APPLICANT REPRESENTATIVE(S), IF ANY, TO SERVE IN THIS APPLICATION AND RECEIVE ALL PAPERS		14. TELEPHONE (include area code)	
Dr. Dale Clark Western Plant Breeders 8111 Timberline Drive Bozeman, MT 59781-8184		(406)-587-1218	
		15. FAX (include area code)	
		(406)-586-8247	
16. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED (Follow instructions on reverse)			
a. <input checked="" type="checkbox"/> Exhibit A. Origin and Breeding History of the Variety b. <input checked="" type="checkbox"/> Exhibit B. Statement of Distinctness c. <input checked="" type="checkbox"/> Exhibit C. Objective Description of the Variety d. <input checked="" type="checkbox"/> Exhibit D. Additional Description of the Variety (Optional) e. <input checked="" type="checkbox"/> Exhibit E. Statement of the Basis of the Applicant's Ownership f. <input checked="" type="checkbox"/> Voucher Sample (2,500 viable untreated seeds or, for tuber propagated varieties verification that tissue culture will be deposited and maintained in an approved public repository) g. <input checked="" type="checkbox"/> Filing and Examination Fee (\$2,450), made payable to "Treasurer of the United States" (Mail to PVPO)			
17. DOES THE APPLICANT SPECIFY THAT SEED OF THIS VARIETY BE SOLD BY VARIETY NAME ONLY, AS A CLASS OF CERTIFIED SEED? (See Section 83(a) of the Plant Variety Protection Act)			
<input type="checkbox"/> YES (If "yes," answer items 18 and 19 below) <input checked="" type="checkbox"/> NO (If "no," go to item 20)			
18. DOES THE APPLICANT SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS?		19. IF "YES" TO ITEM 18, WHICH CLASSES OF PRODUCTION BEYOND BREEDER SEED?	
<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		<input type="checkbox"/> FOUNDATION <input type="checkbox"/> REGISTERED <input type="checkbox"/> CERTIFIED	
20. HAS THE VARIETY OR A HYBRID PRODUCED FROM THE VARIETY BEEN RELEASED, USED, OFFERED FOR SALE, OR MARKETING IN THE U.S. OR OTHER COUNTRIES?			
<input checked="" type="checkbox"/> YES (If "yes," give names of countries and dates) <input type="checkbox"/> NO			
USA March 1999			
21. The applicant(s) declare that a viable sample of basic seed of the variety will be furnished with application and will be replenished upon request in accordance with such regulations as may be applicable, or for a tuber propagated variety a tissue culture will be deposited in a public repository and maintained for the duration of the certificate.			
The undersigned applicant(s) is(are) the owner(s) of this sexually reproduced or tuber propagated plant variety, and believe(s) that the variety is new, distinct, uniform, and stable as required in Section 42, and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act.			
Applicant(s) is(are) informed that false representation herein can jeopardize protection and result in penalties.			
SIGNATURE OF APPLICANT (Owner(s))		SIGNATURE OF APPLICANT (Owner(s))	
			
NAME (Please print or type)		NAME (Please print or type)	
Dale R. Clark		Dan R. Biggerstaff	
CAPACITY OR TITLE	DATE	CAPACITY OR TITLE	DATE
Barley and Wheat Breeder	March 23, 1999	General Manager	3/23/99

Z E K E

“Z E K E”
(Exp. # BZ 987-331)

Exhibit A. Origin and Breeding History of the Variety

“Zeke” (Exp. # BZ 987-331) originated by crossing (in March, 1983) Western Plant Breeders’ male-sterile population designated “EHRSP” (Early Hard Red Spring Population) with the Minnesota variety Marshall and the Minnesota lines MN 7357, MN 73168 and MN 73167 (these were obtained from Dr. Robert Busch – USDA/ARS). The EHRSP was developed by crossing early, semidwarf, Yecora Rojo type wheat’s (obtained from CIMMYT) onto WPB’s Arizona male-sterile bread wheat populations. **This basic male sterile population was originally obtained from Mr. Rex Thompson of the University of Arizona at the Mesa Experiment Station. Mr. Thompson constructed this spring MSFRSP (Wheat Germplasm CC A-1977) utilizing two male sterile lines from the variety ‘Siete Cerros 66’ and many public varieties and Breeding lines as males.** The F1 was grown near Bozeman in the summer of 1983. Bulk F2 and F3 populations were grown near Bozeman in 1984 and 1985 respectively. Single F3 heads were selected for agronomic appearance in the fall of 1985 and planted as individual F4 rows in April, 1986. Agronomically desirable rows were harvested and the F5 seed was planted in 5’x7’ plots in April 1987. Desirable F5 plots were harvested and tested for protein quantity and quality (SDS sedimentation test). One such plot was designated BZ 987-331. This has line been yield tested from 1988 through 1996 (F6 through F14) and also evaluated for disease resistance, plant height, lodging resistance, and various other agronomic characters (see Table 1.) and for end use quality (see Table 4.) as a hard red spring wheat.

Heads were selected from the F12 generation in 1994 and grown as head rows in 1995. Uniform head rows were harvested and bulked. This seed was planted in April, 1996 to produce Breeder’s seed. The Breeder’s seed was planted on approximately eight acres near Bozeman in May, 1997 to produce Foundation seed. Foundation seed was planted in the spring of 1998 for the production of Registered and Certified seed. Certified seed will first be available for sale to growers in the spring of 1999.

Z E K E

A variant that is similar to "Zeke" (BZ 987-331), but is 4 to 8 inches taller, occurs at a frequency of up to .08% (8 per 10,000 plants). Otherwise, Zeke is a stable and uniform variety in agronomic appearance and performance across several generations (F6 to F14) and growing conditions.

16 b. Exhibit B. Statement of Distinctness

Zeke is most similar to the variety Amidon. However, it averages 3 days early in heading date ($t = -17.02$ with 20 d.f., $p < .001$), Table 2, and is approximately 6 inches shorter ($t = -10.899$ with 20 d.f., $p < .001$), Table 3.

The above comparisons along with the complete objective description (Exhibit C) show Zeke to be a novel variety of hard red spring wheat.

ZEKE

Table 1. Agronomic data comparing Zeke to check varieties in the 1996 & 1997 Montana State University Intrastate Hared Red Spring Wheat Trials.

Summary of 18 Locations (9 locations each year)

Variety	Heading Date (Julian)			Plt. Ht. (inches)			T.W. (lbs/bu)			Protein %			Yield (bu/ac)		
	96	97	avg	96	97	avg	96	97	avg	96	97	avg	96	97	avg
Zeke (BZ 987-331)	180	178	179	29	28	29	60	60	60	14.3	14.0	14.1	60	62	61
Amidon	182	181	182	35	36	35	61	61	61	14.4	13.9	14.1	60	61	60
Ernest	183	181	182	35	34	34	61	61	61	14.9	14.6	14.7	56	60	58
Express	182	181	182	25	26	26	60	59	60	14.4	13.8	14.1	58	57	57
Fergus	181	179	180	28	29	29	61	61	61	14.6	14.3	14.5	56	57	56
Fortuna	183	180	181	35	36	35	62	61	61	14.4	14.2	14.3	52	54	53
Glenman	184	182	183	29	30	29	60	59	59	13.5	13.3	13.4	56	56	56
Hi-Line	182	178	180	28	28	28	60	61	60	14.8	14.3	14.5	56	61	58
Len	183	182	183	30	30	30	60	60	60	14.9	14.6	14.8	54	57	56
Lew	185	184	185	34	36	35	61	65	63	14.5	13.8	14.1	51	55	53
McNeal	184	182	183	30	31	30	60	60	60	14.6	14.1	14.4	58	64	61
Newana	185	184	184	28	29	29	60	60	60	13.8	13.3	13.6	55	61	58
Thatcher	185	183	184	36	38	37	59	60	59	14.7	13.6	14.1	48	53	50
Trenton	183	180	182	35	36	36	61	61	61	15.0	14.2	14.6	56	60	58
WestBred 926	180	177	178	29	28	28	60	60	60	15.1	14.6	14.9	57	58	57
WestBred 936	180	178	179	26	26	26	60	60	60	15.0	14.3	14.6	55	57	56

9900231

ZEKE

Table 2. Test of significance (Student's t on paired plots) comparing the heading dates of Zeke and Amidon in Montana State University Trials.

(all values are the mean heading date of two replicated plots at each location)

Year	Location	Heading Date (Julian)		difference	diff sq
		Zeke	Amidon		
1996	Bozeman	183	185	-2	4
	Havre	178	178	0	0
	Sidney-dryland	174	178	-4	16
	Sidney-irrigated	177	179	-2	4
	Kalispell	183	184	-1	1
	Moccasin	180	182	-2	4
	Conrad	185	188	-3	9
1997	Bozeman	187	189	-2	4
	Havre	172	175	-3	9
	Sidney-dryland	166	171	-5	25
	Sidney-irrigated	171	174	-3	9
	Kalispell	184	187	-3	9
	Moccasin	178	185	-7	49
	Conrad	186	190	-4	16
1998	Bozeman	180	183	-3	9
	Havre	171	173	-2	4
	Sidney-dryland	166	169	-3	9
	Sidney-irrigated	173	178	-5	25
	Kalispell	166	171	-5	25
	Moccasin	179	183	-4	16
	Conrad	<u>174</u>	<u>179</u>	-5	25
	mean	176.8	180.0		

sum = -68 272

mean = -3.2381 12.952

$$sd2 = \frac{272 - (68 \times 68) / 18}{21(20)} = \frac{272 - 256.8}{420}$$

$$= 0.0362$$

$$sd = 0.1902$$

$$t = \frac{-3.2381}{0.1902}$$

$$= -17.02 \text{ with 20 degrees of freedom}$$

$$p < .001$$

Table 3. Test of significance (Student's t on paired plots) comparing the plant heights of Zeke and Amidon in Montana State University Trials.

(all values are the mean heading date of two replicated plots at each location)

Year	Location	Plant Height (inches)		difference	diff sq
		Zeke	Amidon		
1996	Bozeman	31	35	-4	16
	Havre	26	30	-4	16
	Sidney-dryland	26	33	-7	49
	Sidney-irrigated	31	40	-9	81
	Kalispell	33	43	-10	100
	Moccasin	27	26	1	1
	Conrad	29	37	-8	64
1997	Bozeman	28	41	-13	169
	Havre	24	31	-7	49
	Sidney-dryland	18	24	-6	36
	Sidney-irrigated	28	37	-9	81
	Kalispell	31	37	-6	36
	Moccasin	33	40	-7	49
	Conrad	30	39	-9	81
1998	Bozeman	31	40	-9	81
	Havre	26	33	-7	49
	Sidney-dryland	34	38	-4	16
	Sidney-irrigated	27	34	-7	49
	Kalispell	35	40	-5	25
	Moccasin	35	43	-8	64
	Conrad	<u>35</u>	<u>40</u>	-5	25
		29.4	36.2		

sum = -143 1137

mean = -6.810 54.143

$$sd^2 = \frac{1137 - (143^2/21)}{21(20)} = \frac{1137 - 973}{420}$$

$$= 0.3904$$

$$sd = 0.6248$$

$$t = \frac{-6.81}{0.6248}$$

$$= -10.899 \text{ with 20 degrees of freedom}$$

$$p < .001$$

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE DIVISION
BELTSVILLE, MARYLAND 20705

EXHIBIT
(Wheat)

OBJECTIVE DESCRIPTION OF VARIETY
WHEAT (*Triticum* spp.)

NAME OF APPLICANT(S)

Western Plant Breeders, Inc

ADDRESS (Street and No. or R.F.D. No., City, State, and Zip Code)

8111 Timberline Drive

Bozeman, MT 59718-8184

FOR OFFICIAL USE ONLY

PVPO NUMBER 9900231

VARIETY NAME

Zeke

TEMPORARY OR EXPERIMENTAL
DESIGNATION

BZ 987-331

PLEASE READ ALL INSTRUCTIONS CAREFULLY: Place the appropriate number that describes the varietal character of this variety in the boxes below. Place a zero in the first box (e.g. or) when number is either 99 or less or 9 or less respectively. Data for quantitative plant characters should be based on a minimum of 100 plants. Comparative data should be determined from varieties entered in the same trial. Royal Horticultural Society or any recognized color standard may be used to determine plant colors; designate system used: _____

Please answer all questions for your variety; lack of response may delay progress of your application.

1. KIND:

1

1=Common

2=Durum

3=Club

4=Other (SPECIFY) _____

2. VERNALIZATION:

1

1=Spring

2=Winter

3=Other (SPECIFY) _____

3. COLEOPTILE ANTHOCYANIN:

1

1=Absent

2=Present

4. JUVENILE PLANT GROWTH:

3

1=Prostrate

2=Semi-erect

3=Erect

5. PLANT COLOR (boot stage):

2

1 = Yellow-Green

2 = Green

3 = Blue-Green

6. FLAG LEAF (boot stage):

2

1 = Erect

2 = Recurved

2

1 = Not Twisted

2 = Twisted

7. EAR EMERGENCE:

0 3

Number of Days Earlier Than Amidon

0 2

Number of Days Later Than West Bred 926

8. ANTER COLOR:

1

1 = YELLOW

2 = PURPLE

9. PLANT HEIGHT (from soil to top of head, excluding awns):

0 8

cm Taller Than West Bred 936

1 5

cm Shorter Than Amidon

9900231

10. STEM:

A. ANTHOCYANIN

☐ 1 = Absent 2 = Present

B. WAXY BLOOM

☐ 2 1 = Absent 2 = Present

C. HAIRINESS (last internode of rachis)

☐ 2 1 = Absent 2 = Present

D. INTERNODE (SPECIFY NUMBER)

☐ 1 1 = Hollow 2 = Semi-solid 3 = Solid 4

E. PEDUNCLE

☐ 2 1 = Absent 2 = Present

☐ 43 cm Length

11. HEAD (at Maturity):

A. DENSITY

☐ 1 1 = Lax 2 = Middense 3 = Dense

B. SHAPE

☐ 2 1 = Tapering 2 = Strap 3 = Clavate 4 = Other (SPECIFY)

C. CURVATURE

☐ 2 1 = Erect 2 = Inclined 3 = Recurved

D. AWNEDNESS

☐ 4 1 = Awnless 2 = Apically Awnletted 3 = Awnletted 4 = Awned

12. GLUMES (at Maturity):

A. COLOR

☐ 1 1 = White 2 = Tan 3 = Other (SPECIFY)

B. SHOULDER

☐ 5 1 = Wanting 2 = Oblique 3 = Rounded 4 = Square 5 = Elevated 6 = Apiculate

C. BEAK

☐ 3 1 = Obtuse 2 = Acute 3 = Acuminate

D. LENGTH

☐ 3 1 = Short (ca. 7mm) 2 = Medium (ca. 8mm) 3 = Long (ca. 9mm)

E. WIDTH

☐ 3 1 = Narrow (ca. 3mm) 2 = Medium (ca. 3.5mm) 3 = Wide (ca. 4mm)

13. SEED:

A. SHAPE

☐ 3 1 = Ovate 2 = Oval 3 = Elliptical

B. CHEEK

☐ 2 1 = Rounded 2 = Angular

C. BRUSH

☐ 2 1 = Short 2 = Medium 3 = Long

D. CREASE

☐ 3 1 = Width 60% or less of Kernel
2 = Width 80% or less of Kernel
3 = Width Nearly as Wide as Kernel

☐ 1 1 = Not Collared 2 = Collared

☐ 2 1 = Depth 20% or less of Kernel
2 = Depth 35% or less of Kernel
3 = Depth 50% or less of Kernel

13. SEED: (continued)

E. COLOR

☒ 3

1 = White

2 = Amber

3 = Red

4 = Other (SPECIFY) _____

9900231

F. TEXTURE

☒ 1

1=Hard

2=Soft

G. PHENOL REACTION (see instructions):

☒ 0

1 = Ivory

2 = Fawn

3 = Light Brown

4 = Dark Brown

5 = Black

0 = Not Tested

14. DISEASE: (0=Not Tested; 1=Susceptible; 2=Resistant; 3=Intermediate; 4=Tolerant)
PLEASE INDICATE THE SPECIFIC RACE OR STRAIN TESTEDStem Rust (*Puccinia graminis* f. sp. *tritici*)☒ 2

Prevalent

Stripe Rust (*Puccinia striiformis*)☒ 4

Prevalent

Tan Spot (*Pyrenophora tritici-repentis*)☐ 0Halo Spot (*Selenophoma donacis*)☐ 0

Septoria nodorum (Glume Blotch)

☐ 0

Septoria avenae (Speckled Leaf Disease)

☐ 0

Septoria tritici (Speckled Leaf Blotch)

☐ 0Scab (*Fusarium* spp.)☐ 0

"Black Point" (Kernel Smudge)

☐ 0

Barley Yellow Dwarf Virus (BYDV)

☐ 0

Soilborne Mosaic Virus (SBMV)

☐ 0

Wheat Yellow (Spindle Streak) Mosaic Virus

☐ 0

Wheat Streak Mosaic Virus (WSMV)

☐ 0

Other (SPECIFY) _____

☐

Other (SPECIFY) _____

☐

Other (SPECIFY) _____

☐Leaf Rust (*Puccinia recondita* f. sp. *tritici*)☒ 4

Prevalent

Loose Smut (*Ustilago tritici*)☐ 0Flag Smut (*Urocystis agropyri*)☐ 0Common Bunt (*Tilletia tritici* or *T. laevis*)☐ 0Dwarf Bunt (*Tilletia controversa*)☐ 0Karnal Bunt (*Tilletia indica*)☐ 0Powdery Mildew (*Erysiphe graminis* f. sp. *tritici*)☒ 2

Prevalent

"Snow Molds"

☐ 0Common Root Rot (*Fusarium*, *Cochliobolus* and *Bipolaris* spp.)☐ 0Rhizoctonia Root Rot (*Rhizoctonia solani*)☐ 0Black Chaff (*Xanthomonas campestris* pv. *translucens*)☐ 0Bacterial Leaf Blight (*Pseudomonas syringae* pv. *syringae*)☐ 0

Other (SPECIFY) _____

☐

Other (SPECIFY) _____

☐

Other (SPECIFY) _____

☐

Other (SPECIFY) _____

☐

15. INSECT: (0=Not Tested; 1=Susceptible; 2=Resistant; 3=Intermediate; 4=Tolerant)

PLEASE SPECIFY BIOTYPE (where needed)

Hessian Fly (*Mayetiola destructor*)

☒

Prevalent

Other (SPECIFY) _____

☐

Stem Sawfly (*Cephus* spp.)

☒

Prevalent

Other (SPECIFY) _____

☐

Cereal Leaf Beetle (*Oulema melanopa*)

☐

Other (SPECIFY) _____

☐

Russian Aphid (*Diuraphis noxia*)

☐

Other (SPECIFY) _____

☐

Greenbug (*Schizaphis graminum*)

☐

Other (SPECIFY) _____

☐

Aphids

☐

Other (SPECIFY) _____

☐

16. ADDITIONAL INFORMATION ON ANY ITEM ABOVE, OR GENERAL COMMENTS:

ZEKE

Table 4. Quality data for "Zeke" hard red spring wheat in Montana State University Intrastate Spring Wheat Yield Trials in 1996 and 1997.

1996 average of 3 locations

Variety	Flour		Mixograph			Baking Data			
	Protein %	Yield %	Abs %	min.	Tol	Abs %	Loaf Vol cc	Bake min.	CG
Zeke	12.7	67.5	71.5	7.2	5.7	92.6	1040	34.9	
Amidon	12.9	68.9	72.7	4.4	3.6	86.6	1077	12.6	
Fortuna	12.8	69.6	71.3	3.8	2.5	87.1	973	9.0	
Hi-Line	13.1	62.9	72.8	8.0	5.3	94.2	1040	24.9	
Lew	13.2	68.4	73.3	6.7	4.0	89.1	1073	25.5	
McNeal	12.9	64.2	72.4	8.6	5.3	93.6	1095	31.2	
Newana	12.0	63.7	70.0	3.8	2.5	86.6	1080	9.3	

1997 average of 5 locations

Variety	Flour		Mixograph			Baking Data			
	Protein %	Yield %	Abs %	min.	Tol	Abs %	Loaf Vol cc	Bake min.	CG
Zeke	12.4	65.4	67.3	6.2	5	75.9	1116	10.1	2
Amidon	12.5	67.8	66.4	3.4	4	71.9	1097	3.6	2
Fortuna	13.0	68.2	67.1	3.2	3	72.9	1117	3.4	3
Hi-Line	13.0	61.9	67.1	5.5	6	75.3	1215	9.0	2
Lew	12.7	67.9	65.8	4.8	5	73.0	1170	5.6	3
McNeal	12.5	63.9	66.3	5.8	5	75.5	1142	7.4	3
Newana	11.7	63.2	64.7	3.4	3	70.9	1151	3.6	2

9900231

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE AND TECHNOLOGY DIVISION - PLANT VARIETY PROTECTION OFFICE

EXHIBIT E
STATEMENT OF THE BASIS OF OWNERSHIP

The following statements are made in accordance with the Privacy Act of 1974 (5 U.S.C. 552a) and the Paperwork Reduction Act (PRA) of 1995.

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

1. NAME OF APPLICANT(S) Western Plant Breeders, Inc.	2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER BZ 987-331	3. VARIETY NAME Zeke
4. ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP Code, and Country) 8111 Timberline Drive Bozeman, MT 59718-8184	5. TELEPHONE (include area code) (406) 587-1218	6. FAX (include area code) (406) 586-8247
	7. PVPO NUMBER	9900231
8. Does the applicant own all rights to the variety? Mark an "X" in appropriate block. If no, please explain. <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		
9. Is the applicant (individual or company) a U.S. national or U.S. based company? If no, give name of country <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		
10. Is the applicant the original breeder? If no, please answer the following: a. If original rights to variety were owned by individual(s): Is (are) the original breeder(s) a U.S. national(s)? If no, give name of country <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO b. If original rights to variety were owned by a company: Is the original breeder(s) U.S. based company? If no, give name of country <input type="checkbox"/> YES <input type="checkbox"/> NO		
11. Additional explanation on ownership (If needed, use reverse for extra space):		

PLEASE NOTE:

Plant variety protection can be afforded only to owners (not licensees) who meet one of the following criteria:

1. If the rights to the variety are owned by the original breeder, that person must be a U.S. national, national of a UPOV member country, or national of a country which affords similar protection to nationals of the U.S. for the same genus and species.
2. If the rights to the variety are owned by the company which employed the original breeder(s), the company must be U.S. based, owned by nationals of a UPOV member country, or owned by nationals of a country which affords similar protection to nationals of the U.S. for the same genus and species.
3. If the applicant is an owner who is not the original breeder, both the original breeder and the applicant must meet one of the above criteria.

The original breeder may be the individual or company who directed final breeding. See Section 41(a)(2) of the Plant Variety Protection Act for definition.

Public reporting burden for this collection of information is estimated to average 10 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Department of Agriculture, Clearance Officer, OIRM, AG Box 7630, Jamie L. Whitten Building, Washington, D.C. 20250. When replying, refer to OMB No. 0581-0055 and form number in your letter.

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